

REMARKS

Claims 1-3, 6-7, 10-15, and 17-20 are pending in the application. The claims were rejected for obviousness.

Rejection under 35 U.S.C. § 103(a)

The Examiner has rejected claims 1-3, 6-7, 10-15, and 17-20 under 35 U.S.C. § 103(a), for being obvious over Johnson et al. WO 99/37817 ("Johnson") in light of Kamb et al. U.S. Patent No. 5,998,136 ("Kamb"). Applicants traverse.

The present invention discloses in one embodiment a method of identifying the function of a test compound by contacting at least three different cell types with the test compound and measuring the expression of one or more genes in each cell type. An alteration of expression of the genes in the presence of the test compound compared to the absence of the test compound, indicates the function of the test compound.

As a preliminary matter, there is no suggestion to combine Johnson and Kamb to produce the claimed invention. Johnson refers to grouping test compounds into classes by exposing cell populations to various compounds, and comparing the expression of various genes in various cell types. Kamb merely refers to a method of identifying a cell proliferation gene. Furthermore, even if combined (which applicants do not believe is proper) that combination does not teach or suggest the claimed method.

Johnson is critically deficient. Johnson describes a method for identifying the function of a test compound by (i) providing a plurality of cells, the plurality comprising at least two different cell types and exposing the plurality of cells with a test compound; (ii) measuring expression of one or more genes in the said cell types and comparing the expression of said genes with a reference cell and an alteration in said gene expression indicates the function of said test compound. As stated by the Examiner, Johnson while teaching the HepG2 cell type does not teach or suggest the *specific* mammalian cell types required by the pending claims. Since Johnson does not disclose use of at least three mammalian cell types selected from the *specifically* recited list of osteosarcoma, astrocytoma, erythroleukemia, hepatoma, monocytic, endothelial, fibroblast, T-cell, monocyte, B-cell, NK-cell, normal human osteoblast, astrocyte,


hepatocyte and normal human lung fibroblast cell types, Johnson does not disclose each and every element of the claimed invention.

Kamb does not cure these deficiencies. Kamb describes a method of identifying a cell *proliferative gene* in a growth proficient revertant cell. Kamb does not teach or suggest identifying the *function* of a test compounds by determining changes in gene expression in a cell that has been contacted by the test compound as required by the claimed method. Therefore, the combination of Johnson and Kamb cannot lead the ordinarily skilled artisan to the claimed methods.

CONCLUSION

Applicants submit that the application is in condition for allowance and such action is respectfully requested. Should any questions or issues arise concerning the application, the Examiner is encouraged to contact the undersigned at the telephone number provided below.

Respectfully submitted,



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